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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,390	07/06/2001	Tatsuma Ohkubo	199691US2PCT	3418

22850 7590 01/18/2007  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
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ALEXANDRIA, VA 22314

EXAMINER
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KHOSHNOODI, NADIA

ART UNIT	PAPER NUMBER
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2137

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/700,390

Applicant(s)

OHKUBO ET AL.

Examiner

Nadia Khoshnoodi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-106 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-106 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Traversal of Election/Restrictions Requirement***

Applicants' election with traverse of Group 1 in the reply filed on 8/2/2004 is acknowledged. The traversal is on the ground(s) that it has not been established that it be an undue burden to examine each of the noted inventions and claims together. Upon reviewing the previous Restriction Requirement mailed 3/1/2004, as well as each and every claim, the Examiner withdraws the previous Restriction Requirement. However, Examiner still believes that a Restriction Requirement is deemed necessary and therefore submits new Groups I-VII, as well as a detailed explanation as to why the newly formulated Restriction Requirement is proper, i.e. why there would be a serious burden on the Examiner if required to examine the many inventions claimed in this application on their merits. Furthermore, the Examiner would like to note that since this application is a 371 of a PCT, Groups I-VII are described as lacking unity with one another.

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

**Group I: Claims 1-17** are drawn to communications for creating/updating/canceling a member list based on the determination of whether or not the digital signature of the team master is valid,

classified in **class 713, subclass 176**.

**Group II: Claims 18-27** are drawn to creating secret key for registration, where the secret key is optimally selected based on a certain group at the time of the request, classified in **class 380, subclass 44**.

**Group III: Claims 28-50** are drawn to receiving contents, creating confirmation data, and sending that confirmation data where the sent confirmation data and the received confirmation data are compared to provide for tamper detection, classified in **class 713, subclass 194**.

**Group IV: Claims 51-60** are drawn to obtaining/generating a secret key where the secret key is encrypted using a public key in order to have the capability of detecting whether or not the key is from a valid source classified in **class 380, subclass 282**.

**Group V: Claims 61-68** are drawn to hierarchically ordering members of a team, where each team has a sub-team and the administrator of each team is authenticated if the root digital signature at each of the sub-trees is valid, classified in **class 713, subclass 177**.

**Group VI: Claims 69-95** are drawn to distributing an encrypted message in broadcast for to members identified in a member list, classified in **class 380, subclass 255**.

**Group VII: Claims 96-106** are drawn to creating a permissions list to enable a personal identification/authentication system to determine the rights each member has, classified in **class 726, subclass 6**.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group II does not include the specific limitations of the apparatus/method of Group I. Specifically, Group II does not

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include the steps of only creating/updating/changing the members list if the digital signature of the team master is confirmed to be valid. Furthermore, Group I does not include details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

3. The inventions listed as Groups I and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group III does not include the specific limitations of the apparatus/method of Group I. Specifically, Group III does not include the steps of only creating/updating/changing the members list if the digital signature of the team master is confirmed to be valid. Furthermore, Group I does not include a tamper detection unit which compares confirmation data sent/received. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

4. The inventions listed as Groups I and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group IV does not include the specific limitations of the apparatus/method of Group I. Specifically, Group IV does not include the steps of only creating/updating/changing the members list if the digital signature of the team master is confirmed to be valid. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

5. The inventions listed as Groups I and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group I does not include the specific limitations of the apparatus/method of Group V. Specifically, Group I does not have steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

6. The inventions listed as Groups I and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VI does not include the specific limitations of the apparatus/method of Group I. Specifically, Group VI does not include the steps of only updating/changing the members list if the digital signature of the team master is confirmed to be valid. Furthermore, Group I does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

7. The inventions listed as Groups I and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group I does not include the specific limitations of the apparatus/method of Group VII. Specifically, Group I does not include the steps of an administrator defining different levels of

access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

8. The inventions listed as Groups II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group III does not include the specific limitations of the apparatus/method of Group II. Specifically, Group III does not include the details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Furthermore, Group II does not include a tamper detection unit, which compares confirmation data sent/received. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

9. The inventions listed as Groups II and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group IV does not include the specific limitations of the apparatus/method of Group II. Specifically, Group IV does not include the details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Furthermore, Group II does not include details regarding how the secret key must first be encrypted with a public key before transmission with the intent of protecting the secret key and being able to determine validity of the source it was received from. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

10. The inventions listed as Groups II and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group V does not include the specific limitations of the apparatus/method of Group II. Specifically, Group V does not include the details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Furthermore, Group II does not have steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

11. The inventions listed as Groups II and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VI does not include the specific limitations of the apparatus/method of Group II. Specifically, Group VI does not include the details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Furthermore, Group II does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

12. The inventions listed as Groups II and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or



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corresponding special technical features for the following reasons: the apparatus/method of Group VII does not include the specific limitations of the apparatus/method of Group II. Specifically, Group VII does not include the details on how the secret key should be generated/selected in order to result in the optimal secret key based on the time of the request and the group it pertains to. Furthermore, Group II does not include the steps of an administrator defining different levels of access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

13. The inventions listed as Groups III and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group IV does not include the specific limitations of the apparatus/method of Group III. Specifically, Group IV does not include a tamper detection unit, which compares confirmation data sent/received from another entity. Furthermore, Group III does not include details regarding how the secret key must first be encrypted with a public key before transmission with the intent of protecting the secret key and being able to determine validity of the source it was received from. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

14. The inventions listed as Groups III and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group V does not include the specific limitations of the apparatus/method of Group III.

Specifically, Group V does not include a tamper detection unit, which compares confirmation data sent/received from another entity. Furthermore, Group III does not have steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

15. The inventions listed as Groups III and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VI does not include the specific limitations of the apparatus/method of Group III. Specifically, Group VI does not include a tamper detection unit, which compares confirmation data sent/received from another entity. Furthermore, Group III does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

16. The inventions listed as Groups III and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VII does not include the specific limitations of the apparatus/method of Group III. Specifically, Group VII does not include a tamper detection unit, which compares confirmation data sent/received from another entity. Furthermore, Group III does not include the steps of an administrator defining different levels of access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See

37 CFR 1.475.

17. The inventions listed as Groups IV and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group IV does not include the specific limitations of the apparatus/method of Group V. Specifically, Group IV does not include steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

18. The inventions listed as Groups IV and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VI does not include the specific limitations of the apparatus/method of Group IV. Specifically, Group VI does not include details regarding how the secret key must first be encrypted with a public key before transmission with the intent of protecting the secret key and being able to determine validity of the source it was received from. Furthermore, Group IV does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

19. The inventions listed as Groups IV and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of

Group VII does not include the specific limitations of the apparatus/method of Group IV. Specifically, Group VII does not include details regarding how the secret key must first be encrypted with a public key before transmission with the intent of protecting the secret key and being able to determine validity of the source it was received from. Furthermore, Group IV does not include the steps of an administrator defining different levels of access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

20. The inventions listed as Groups V and VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VI does not include the specific limitations of the apparatus/method of Group V. Specifically, Group VI does not include steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level. Furthermore, Group V does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

21. The inventions listed as Groups V and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VII does not include the specific limitations of the apparatus/method of Group V. Specifically, Group VII does not include steps for creating a hierarchical structure where at each root the administrator's digital signature must be validated, i.e. authenticating every level.

Furthermore, Group V does not include the steps of an administrator defining different levels of access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

22. The inventions listed as Groups VI and VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the apparatus/method of Group VII does not include the specific limitations of the apparatus/method of Group VI. Specifically, Group VII does not include steps for utilizing the member list to determine which members should receive the encrypted data via broadcast. Furthermore, Group VI does not include the steps of an administrator defining different levels of access rights/permissions for each member. Therefore, the two groups of claims are not directed to a product and a process of use of said product. See 37 CFR 1.475.

23. A telephone call was made to the Attorney on 1/10/2007 to request an oral election to the above restriction requirement, but did not result in an election being made.

24. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

25. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadia Khoshnoodi whose telephone number is (571) 272-3825. The examiner can normally be reached on M-F: 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nadia Khoshnoodi  
Examiner  
Art Unit 2137  
1/12/2007

NK



EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER